Tektronix

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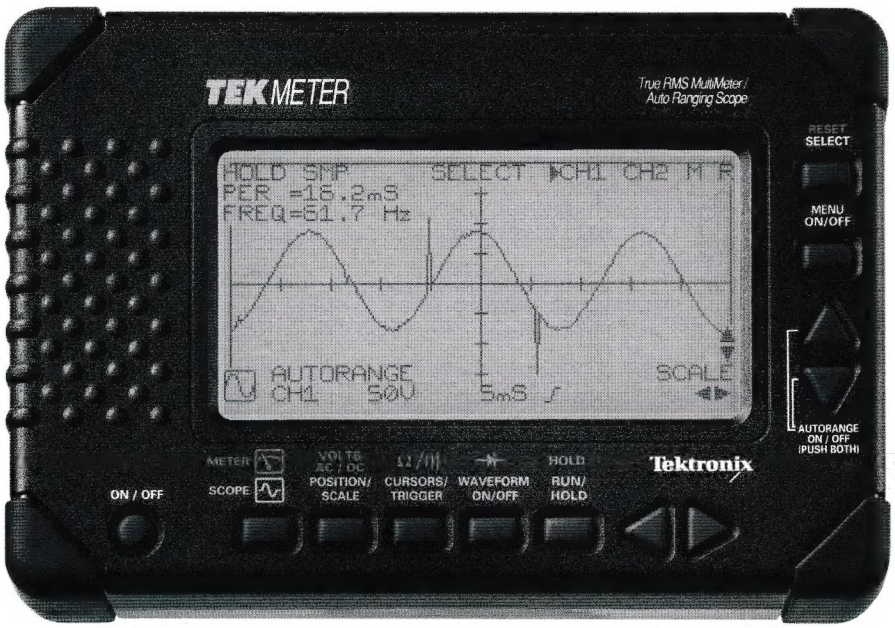
TekMeter™ 550/560/565 True RMS Multimeter with Autoranging Scope



True RMS multimeter and autoranging oscilloscope

Measures signals from 5µV to 850V

ΔV, ΔT and 1/ΔT cursors

Automatic measurements

Backlit LCD display (565 only)

UL and CSA certified to 600 VAC RMS or 850 VDC

6kV surge protected

Powered by 6 standard AA batteries

Weighs only 2.2 lbs. (990 grams)

Works with all standard DMM probes and accessories

One year warranty

What is it?

TekMeter combines the power of a true RMS multimeter and autoranging scope in one compact, handheld product. Its familiar DMM-like interface features a large numerical display so you can read signals in most environments.

Is it for you?

TekMeter was expressly designed for people who don't have time to become scope experts. If you are a plant or field technician involved in installation, repair, service, or maintenance, TekMeter is for you.

What makes TekMeter special?

Unlike a traditional DMM, TekMeter's large display gives you everything you need to know about what you're measuring. In addition to the numerical and analog bar readout you're used to seeing, the display shows you Max, Min, Max-Min, Hold and ΔHold all at once. You get more information about the signal.

Switch modes and TekMeter gives you a waveform display like an oscilloscope. The scope is also autoranging, so it automatically scales and tracks as the signal changes, giving you hands-free operation.

So what makes it so powerful?

TekMeter's simple interface allows quick access to a host of features like cursors, automatic measurements, true power, Transformer Harmonic Derating Factor and spike detect—all of which will help you get to the source of your problem more quickly. Best of all, TekMeter uses Tektronix proprietary technologies to give you 50 times more information about your signal and ensure that you see the real signal all the time.

What else can it do?

TekMeter can do anything you're doing now, and more—test power quality, verify logic circuitry, test motor drives, examine video signals, you name it. You get measurable results that get the job done.

Multimeter Specifications

Resolution

3 3/4 digit—4000 counts multimeter

DC - Voltage

Range—400 mV to 850V

Accuracy—± (0.5% of reading + 5 counts)

Normal Mode Rej.—> 60 dB at 50/60Hz

AC - Voltage

Range—All measurements are TRUE RMS, crest factor of 3, 400mV to 600V

Accuracy—± (2% of reading + 5 counts)

Ω - Resistance

Range—400Ω to 40 MΩ

Accuracy—± (0.5% of reading + 5 counts) except 40 MΩ range which is ± (2% of reading + 5 counts)

Diode Test

Range—0 to 2 Volts.

Continuity Checker

Indication—Audible tone and a graphic display. "CLOSED CIRCUIT" displayed when resistance is < 150 Ω.

Multimeter Modes

MIN, MAX, MAX-MIN—Records minimum, maximum and max-min.

HOLD, ΔHOLD—HOLD captures current reading. ΔHOLD shows difference between HOLD reading and current reading.

Oscilloscope Specifications

Operation Modes

AutoRanging Oscilloscope—Sets the vertical scale, horizontal scale and stabilizes the waveform(s) on screen automatically.

Line Test—Will monitor a 50 or 60 Hz line and capture abnormal events such as spikes, drop-outs and frequency variation. Time and date of anomaly is recorded and displayed on the screen. (565)

Motor Test—Will stabilize (trigger) on Pulse Width Modulated signals generated by variable AC motor drives. (565)

Single Shot—Will set up product to capture single events.

Vertical

Number of Channels—One channel (550), Two channels (560, 565)

Bandwidth—DC to 5 MHz

Volts/Division Range—5mV to 500V/div

Max. input voltage—± (600V RMS + 6000V surge) between any inputs.

Mathematics

Subtract (CH1 - CH2), Add (CH1 + CH2) (560, 565)

Acquisition

Number of Digitizers—One 8bit: 25MS/s digitizer (550); Two 8bit: 25MS/s digitizers (560, 565)

Acquisition Modes—Sample (Normal), Spike Detect (40ns), Smooth, Dynamic display DSP, Roll (200 mS/div to 60 S/div)

Horizontal

Seconds/Division Range—60 S/div to 200 ns/div in a 1-2-5 sequence

Record Length—256 points over 10 divs

Measurements

Cursors—ΔV: Voltage difference (or current); ΔT: Time (seconds) differences; 1/ΔT: Reciprocal of ΔT (Hz)

Voltage—Maximum, Minimum, Peak-to-Peak.

Timing—Period, Frequency

Power—Calculates and reads out RMS Power, RMS Voltage and RMS Current (with current probe). (560, 565)

THDF—Transformer Harmonic Derating Factor calculated (560, 565)

Waveform Display

Display Update Rate—Dynamic Display DSP: maps up to 500 waveforms/sec on screen, simulating analog-like display.

Memories

Setups—Each stores the complete state of the instrument: 4 setups (550, 560), 8 setups (565)

Save Screens—Store screen: "What you see is what you save"; 1 screen (550, 560), 8 screens (565)

Save Waveform—Store selected waveform data: 4 waveforms (550, 560), 8 waveforms (565)

General Specifications

Display System

Size—Width 127 mm (5.0 in), Height 70mm (2.7 in)

Backlight—Electroluminescent (565)

Power Source

Batteries—Six size AA cells (9 V nominal), and 5 hrs. typical battery life (with alkalines); battery saver shuts down automatically.

Environmentals

Operating temperature—0 °C to +50 °C

Emissions—FCC rules and regulations, 47 CFR, Part 15, Subpart B Class A; VFG 0243 (without probes attached).

Mechanical

Size & Weight—Height:141mm (5.6 in), Width: 211mm (8.3 in), Depth: 43 mm (1.7 in), Wt: 1 kg (2.2 lbs)

Safety

Safety—6kV surge protected. Certified for UL 1244 and CSA.

Ordering Information

THM 550

True RMS Multimeter and single-channel autoranging scope.

THM 560

True RMS Multimeter and two-channel autoranging scope.

THM 565

Deluxe True RMS Multimeter and two-channel autoranging scope.

Standard Accessories

All TekMeter models include test leads, user manual and quick reference guide.

Optional Accessories

TXMDXPB—Deluxe probe set

THM5SCA—Soft case with neck strap

THM5HCA—Transport case

THMBAT—NiCad battery pack with recharger

THMCOM1—AC/DC adapter, RS-232 PC-link, software

A605—500 Amp AC current probe

A621—1,000 Amp AC current probe

A622—100 Amp AC/DC current probe

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